Economic
Development
And Trade

Alberta Aerospace

Alberta

OPPORTUNITY

MINISTER'S MESSAGE

Aerospace is an important part of Alberta's diversification. The first Aerospace Directory is an important step in the development of the industry.

Just a few years ago, only a handful of Alberta manufacturers and suppliers were involved in the industry. As the listings in the Directory show, close to 50 Alberta companies are now succeeding in this highly-sophisticated, competitive field.

Like other initiatives undertaken to diversify the provincial economy, the development of the aerospace industry represents the natural evolution of Alberta industry into promising new areas of opportunity. For the most part, the manufacturers, service and supply companies listed in this Directory are not new companies, but are well-established firms which have developed to meet the diverse needs of the aerospace industry.

Their successes have already returned significant benefits to Alberta. Together, they have contributed to the expansion of our economic base, have generated new sources of income, and have created new job opportunities for Albertans.

I salute the innovation and commitment of these companies, which have helped to build this vital new industry and encourage the world's aerospace leaders to look to Alberta for the products and services they require.

Larry R. Shaben
Minister

ALBERTA AEROSPACE

OPPORTUNITY UNLIMITED!

Over the past decade, the thrust to diversify Alberta's economy has seen the development of a number of high-technology industries.

This trend is most clearly visible in the province's aerospace industry. Alberta companies have responded to the virtually unlimited opportunities to expand into this fast-paced and rapidly-growing field. In recent years, annual sales figures have climbed steadily upwards, reaching well above $400 million a year in 1986 alone.

Alberta is uniquely qualified to support the development of the sophisiticated aerospace industry, with a strong manufacturing infrastructure already in place, with internationally-recognized expertise in high-technology areas, and with a highly-trained and educated labor force of over 9,000 people. Programs and resources provided by the Government of Alberta demonstrate the provincial commitment to support the industry's development.

Contracts already signed with major clients in the United States, in the United Kingdom, Europe and in other Canadian provinces are concrete evidence of the Alberta industry's global reputation for quality, performance, and competitive outlook.

For companies looking for this consistently high level of service, this Directory will prove to be a valuable resource. It identifies companies involved in the industry, provides information on the products and services offered, and given background on specialty areas, industrial standards, and job-related experience.

Alberta firms listed have proven track records, superb credentials - and are eager to explore new opportunities in the aerospace industry.

ALBERTA AEROSPACE DIRECTORY

AIRBORNE PRECISION INSTRUMENTS

#110, 5621 - 11 Street N.E.
Calgary, Alberta T2E 6Z7
Telephone: (403) 275-4211

CONTACT: Neil M. Birch - President

PRODUCTS, SERVICES, SPECIALITIES:
- Electronic refitment centre for various types of aircraft.
- Specialize in autopilots and repair of instruments and avionics as combined services.
- Complete test equipment maintenance facilities.

QUALITY STANDARDS:
- M.O.T. requirements, DND approval is expected in 1987.
- Certified avionics and instrument repair station.

MAJOR CLIENTS: Time Air, Pacific Western Airlines, Calm Air, NorcanAir, Northwest Territorial Airways, Esso, Chevron, Pan Canadian, Shell.

EMPLOYEES: 15

SALES: $1 Million

ALBERTA LASER INSTITUTE

9924 - 45 Avenue
Edmonton, Alberta T6E 5J1
Telephone: (403) 436-9750
Telex: 037-2979

CONTACT: Dale Allsopp - Program Supervisor

PRODUCTS, SERVICES, SPECIALITIES: Custom laser machining and processing of exotic materials such as metals, plastics and ceramics.

QUALITY STANDARDS: In-house Quality Assurance Program.

FEATURED EQUIPMENT: 5 kW CO_2 laser with 5 axis work station. 800 W CO_2 laser with 2 axis work station.

MAJOR CLIENTS: Lumonics Corporation, Leitz Canada, Marconi Canada.

EMPLOYEES: 7

ALBERTA RESEARCH COUNCIL

P.O. Box 8330, Station "F"
250 Karl Clark Road
Edmonton, Alberta T6H 5X2
Telephone: (403) 450-5111
Telex: 037-2147

CONTACT: Dr. Robert W. Stewart - President

PRODUCTS, SERVICES, SPECIALITIES: Contract research services and support services to Alberta industry including oil sands, energy processing, natural resources, biotechnology, industrial technologies, and advanced technologies.

MAJOR CLIENTS: Various government departments and private sector companies.

EMPLOYEES: 600

AMPTECH CORPORATION

1351 Hastings Crescent S.E.
Calgary, Alberta T2G 4C8
Telephone: (403) 243-1263
Telex: 038-22094

CONTACT: Ronald Van Schilt - President
Tim Davies - Director Business Development
Ken Saviak - Vice President Marketing

PRODUCTS, SERVICES, SPECIALITIES:
- Aluminum and zinc die casting.
- Injection moulding of specialty thermoplastics for the aerospace industry.

QUALITY STANDARDS: DND 1015

FEATURED EQUIPMENT: CNC injection moulding machines. CAD/CAM system to be installed in 1987.

MAJOR CLIENTS: Currently sell to defence prime and subcontractors in U.S. and Canada including General Dynamics, Raytheon, Hughes, Litton Systems, Lockheed Corporation and Bristol Aerospace.

EMPLOYEES: 120

SALES: Estimate $8 Million

APOLLO MACHINE & WELDING LTD.

5703 - 92 Street
Edmonton, Alberta T6E 3A4
Telephone: (403) 436-4876

CONTACT: Robert Norton - President

PRODUCTS, SERVICES, SPECIALITIES: Precision Machining

QUALITY STANDARDS: Quality Assurance Program to American Petroleum Institute specifications.

FEATURED EQUIPMENT: 6 CNC lathes. 2 CNC machining centres. New CNC saw.

MAJOR CLIENTS: Willis, McEvoy, Northstar, Master-Flo.

EMPLOYEES: 18

SALES: $2.5 Million

ATHABASCA RESEARCH CORPORATION LTD.

#118, 17220 Stony Plain Road
Edmonton, Alberta T5S 1K6
Telephone: (403) 484-8335
Telex: 037-3336
Telefax: (403) 483-3676

CONTACT: T.E. (Ed) Adams - President

PRODUCTS, SERVICES, SPECIALITIES:

- Expertise in environmental measuring instruments.
- Design and manufacture meteorological instruments including weather radar systems.
- Manufacture the Vacutech System for underground testing of storage tanks.
- Tactical Target Scoring Systems (TTSS), laser expertise.

QUALITY STANDARDS: In-house Quality Assurance Program.

MAJOR CLIENTS: National Research Council, Alberta Research Council, Esso, Gulf, Amoco, Chevron.

EMPLOYEES: 24

CALGARY CONTROLS LTD.

7056 H Farrell Road S.E.
Calgary, Alberta T2H 0T2
Telephone: (403) 253-6101

CONTACT: Walter H. Lindenbach - President

PRODUCTS, SERVICES, SPECIALITIES: Custom manufacture telecommunications equipment such as remote telephones, speaker phones, radio adaptors, sequential encoders, solid state voice alarms, alarm display units and a remote addressable loopback unit.

QUALITY STANDARDS: Manufacture to customer's specifications.

MAJOR CLIENTS: Dome Petroleum, Esso, Gulf, Shell, Bow River Pipeline, Peace Pipeline, Canadian National, Canadian Pacific, Alberta Government Telephones, Manitoba Tel, New Brunswick Tel, Bell Canada, Sask Tel, Alberta Power, City of Calgary Electric, Northwest Utilities, TransAlta Utilities.

EMPLOYEES: 14

SALES: $750,000

CANTERRA ENGINEERING LTD.

#7, 3610 - 29 Street N.E.
Calgary, Alberta T1Y 5Z7
Telephone: (403) 291-0650
Telex: 038-21214

CONTACT: Howard Jackson - Vice President Sales

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture amphibious off-road vehicles.
- Manufacture specialized drills, hand carried to truck/buggy mounted.
- Custom engineering services.
- International expertise.

QUALITY STANDARDS: In-house Quality Assurance Program. Fabricate to ASME standards.

FEATURED EQUIPMENT: Mill, lathe, welders are in-house for short run equipment; several fabrication shops manufacture from our drawings for large runs.

MAJOR CLIENTS: PetroCan, Royal Dutch Shell, Arco, Amoco, GSI (Texas Instruments), Geosource, Geco, People's Republic of China, (Ministry of Petroleum, Ministry of Geology), World Health Organizations, United Nations, World Bank (funded projects).

EMPLOYEES: 45

SALES: $5 Million

CANUTEL INDUSTRIES LTD.

P.O. Box 610
College Heights, Alberta T0C 0Z0
Telephone: (403) 782-4838
Telex: Through ENVOY 100
Call New York (00) 961000
User Code: YCL 1335

CONTACT: Hugo Wegmuller - President
Adolf Rovelli - Senior Vice President

PRODUCTS, SERVICES, SPECIALITIES:

- Electronic contract assembly.
- Specialize in insertion, assembly and testing of printed circuit boards and assembly and testing of complete electronic equipment.
- Also heat chamber burn-ins, conformal coating, cable assemblies, wire wrapping and mechanical assemblies.
- Assemble and manufacture temperature monitors and heart rate monitors for Defence Research and control modules for Air Traffic Control Training Simulators.

QUALITY STANDARDS: MIL-I-4508A, AQAP 1, AQAP 4, Transport Canada DTA 1000 requirements, and IPC standards. Canutel is an approved vendor to Raytheon and Northern Telecom.

FEATURED EQUIPMENT: Two Electroprep lead-forming machines, Electrovert 10'' wave soldering machine and Hollys 12'' wave soldering machine. Production and testing process is backed by computerized systems developed in-house.

MAJOR CLIENTS: Various companies and government agencies in telecommunications, industrial, security and computer fields such as Alberta Government Telephones, Transport Canada, Myrias, Westronics, Lakewood Systems, and Novatel.

EMPLOYEES: 45

CATS DEFENCE SUPPORT SYSTEMS INC.

ONE OF THE ATCO GROUP OF COMPANIES

909 - 11 Avenue S.W.
Calgary, Alberta T2R 1L8
Telephone: (403) 245-7500
Telex: 038-24521
Telefax: (403) 245-7400

CONTACT: J.D. (Doug) Graham - President and Project Manager

PRODUCTS, SERVICES, SPECIALITIES: CATS draws into one project team the various areas of expertise, available within the ATCO Group, required for the development of a moving targetry system for training of tank gunnery crews. The system consists of five subsystems.

- PRIME MOVER: A small remote controlled vehicle capable of carrying a large target image under training range conditions.
- SUPERSTRUCTURE: A strong yet lightweight, full scale, three dimensional image capable of sustaining a large number of hits with minimal damage.
- ELECTRONIC CONTROL SYSTEM: A control and communication system for guiding a number of target vehicles simultaneously along pre-programmed routes with a minimum of fixed field installations. Operator control of the targets is maintained through radio communication from a computerized central command console.
- HIT RECORDING: An electronic system capable of detecting legitimate hits while screening out other stimuli such as vehicle movements. An appropriate visual response is presented at the target and the fact that a hit has occurred is transmitted to the central command console.
- SIMULATED FIRING: Pyrotechnic simulated return fire for added realism during training.

MAJOR CLIENTS: Government of Canada, Department of National Defense.

EMPLOYEES: 6 (ATCO Group Employees: 6,000)

SALES: Development and field testing being completed. Marketing to follow in mid-1987. (ATCO Group Sales: $1.5 Billion)

CAULFIELD ENGINEERING

193 E Whitecroft
52313 Range Road 232
Sherwood Park, Alberta T8B 1B7
Telephone: (403) 464-1380; (403) 464-4177
Telex: 037-2697

CONTACT: David Caulfield - President

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture ship speed log equipment, correlation sonar equipment, stereo side scan sonar equipment, marine and land shallow sub bottom data equipment, custom microprocessors for navigation systems, special sensors, lasers and signal processors.
- Involved in low temperature computer development.
- Expertise in interfacing laser sensors with computers.

QUALITY STANDARDS: Manufacture to customer's specifications.

FEATURED EQUIPMENT: Small CAD System, Prototype Machine Shop and Electronic Assembly Facilities; Anechoric Test Tank for Sensor Calibration.

MAJOR CLIENTS: U.S. Government, Canadian Government, U.S. Navy, Esso, Gulf, Dome, SAIC, ATCO.

EMPLOYEES: 6 - 12

SALES: $500,000 - $1.5 Million

CENTURY MACHINE COMPANY LTD.

#1, 1915 - 30 Avenue N.E.
Calgary, Alberta T2E 6Z5
Telephone: (403) 250-9742

CONTACT: Peggy Hertzer - Administrator

PRODUCTS, SERVICES, SPECIALITIES:

- Precision machining, manufacture components for instrumentation valves.
- Manufacturer thermowells.

QUALITY STANDARDS: Prepared to manufacture to mil spec. Currently awaiting approval on CSA 299 Level 3.

FEATURED EQUIPMENT: CNC lathes and milling machines.

MAJOR CLIENTS: Rosemount Instruments Ltd., ITT-Barton, Pamco, Dresser-Ashcroft, Barber Engineering.

EMPLOYEES: 22

DATEK INDUSTRIES LTD.

8522 Davies Road
Edmonton, Alberta T6E 4Y5
Telephone: (403) 465-1530
Telex: 037-42726

CONTACT: Alex Frei - Sales Engineer

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture Supervisory Control and Data Acquisition (SCADA) systems, telemetry, printed circuit boards.
- Electronic design and manufacture (hardware and software).

QUALITY STANDARDS: Quality Assurance based on CSA Z299.3.

FEATURED EQUIPMENT: Model 8000 - a general purpose industrial micro-computer to be used for SCADA master stations, data logger, SCADA RTU's, Stand-Alone Controller. Vista SCADA software package.

MAJOR CLIENTS: Alberta Government Telephones, Canadian Superior Oil, Chevron Canada, City of Edmonton, Coseka, Resources, Department of National Defense/Department of Supply and Services, Dresser Industries, Edmonton Power, Esso Petroleum, Gulf Canada, ICG Resources, NOVA, an Alberta Corporation, Syncrude, Trans Mountain Pipeline, Mobil Oil Canada.

EMPLOYEES: 45

SALES: $2.5 Million

EDO CANADA LTD.

#8, 6320 - 11 Street S.E.
Calgary, Alberta T2H 2L7
Telephone: (403) 255-6667
Telex: 038-25895

CONTACT: Frank Wiskar - General Manager
Fraser Rea - Sales Manager
E. Ann Cox - Sales Co-ordinator

PRODUCTS, SERVICES, SPECIALITIES:

- Specialize in development, manufacture and marketing of precision electronic instruments and systems for land survey and marine markets as well as data acquisition systems.
- Have a full line of dual channel transit satellite doppler navigation and survey receivers and peripherals.
- Expertise in underwater acoustics, applied optimal estimation (Kalman Filter), marine navigation system, adaptive and distributed micro-processor systems.
- G.P.S. satellite positioning receivers and peripherals.
- Marine Integrated Navigation Systems.

QUALITY STANDARDS: AQAP 1

MAJOR CLIENTS: Supported by Federal and Provincial Governments to become primary source of Kalman filtering expertise. Canadian Navy.

EMPLOYEES: 25

SALES: Estimate $3 Million

ELECTRONICS TEST CENTRE

P.O. Box 8330, Station "F"
250 Karl Clark Road
Edmonton, Alberta T6H FX2
Telephone: (403) 450-5370
Telex: 037-2147

CONTACT: Brian Young - General Manager

PRODUCTS, SERVICES, SPECIALITIES: Provides a "one-stop" testing and engineering service accredited and recognized by a wide range of regulatory and certification agencies.

- Provides performance analysis on telecommunications products.
- Performs climatic and dynamic testing.
- Performs testing and ensures the safety of electronic systems and components.
- Evaluates the EM interference and/or susceptibility of electronic products.
- Quantifies parameters such as failure rates and modes, yield prediction, life-cycle costing, and logistic and maintenance support using computer modelling.

The Centre also offers a Documentation Centre which provides up-to-date standards, specification documents, handbooks, guides, and directories, available to the customer.

QUALITY STANDARDS: DOC, IEC, MIL-STD, FCC, CSA, UL, FCC, CISPR, VDE, SAE, RTCA, DND, Bell Canada, AT & T, and others.

MAJOR CLIENTS: BNR, Novatel, Northern Telecom, SED Systems, Alberta Government Telephones, MacDonald Detwiller, Glenayre, provincial and federal agencies, US and foreign companies.

EMPLOYEES: 18

FIELD AVIATION WEST LTD.

P.O. Box 3186, Station "B"
Calgary, Alberta T2M 4L7
Telephone: (403) 275-2111
Telex: 038-22597

CONTACT: D.E. Thomson - Executive Vice President
C.C. Carruthers - Director, Technical Services

PRODUCTS, SERVICES, SPECIALITIES: 250,000 square feet of modern enclosed hangar space provides accommodation for the following:

- A complete line of aircraft inspection, repair, overhaul and modification services is provided for civilian and military fixed wing aircraft and helicopters.
- Worldwide salvage and repair of crash damaged aircraft.
- Aircraft seat design and manufacture.
- Aircraft interior design and installation.
- Specialized aeronautical engineering, particularly in the area of outfitting aircraft for individual specialized purposes (aerial photo, remote sensing, water bombing, etc.)

QUALITY STANDARDS: Canadian Ministry of Transport company approval 5-60; Canadian Department of National Defense recognition to NATO AQAP 1 standards (U.S. Military equivalent MIL-Q-9858A); Short Brothers PLC approval SB/QC/AC/226; Canadair approval as procurement source; Bell Helicopter Textron approval as procurement source.

FEATURED EQUIPMENT: Modern environmentally controlled paint facility capable of housing aircraft up to and including the Boeing 737; Complete line of airframe repair fixtures and tooling is maintained in support of salvage and repair of damaged aircraft.

MAJOR CLIENTS: The de Havilland Aircraft Company of Canada, Division of Boeing of Canada Limited; Short Brothers (Northern Ireland); Construcciones Aeronauticas, S.A. (Spain); Canadian Department of National Defense; United States Navy; United States Army; Mexican Navy; Major and Commuter Airlines.

EMPLOYEES: 200

FRONTEC LOGISTICS CORPORATION

ONE OF THE ATCO GROUP OF COMPANIES

10035 - 105 Street
Edmonton, Alberta T5J 2V6
Telephone: (403) 420-7310

Suite 1321, 50 O'Conner Street
Ottawa, Ontario K1P 6L2
Telephone: (613) 238-3217
Telex: (Edm.) 037-2848
TWX: 610-831-1143

CONTACT: George Paicu - President, Edmonton
Steven Lougheed - Director Business Development, Ottawa

PRODUCTS, SERVICES, SPECIALITIES:

- Facilities management, operation and maintenance and logistics support in remote regions.
- Frontec is a recently formed subsidiary of ATCO and Canadian Utilities Limited charged with bringing together the combined expertise of the ATCO Group to bid on facilities management, operation, and maintenance and logistics.

TECHNICAL CAPABILITIES: Logistics support - remote locations, electronics, communications networks, Supervisory Control and Data Acquisition (SCADA) technology, project design and management, facilities management, power generation.

MAJOR CLIENTS: Gulf Canada Resources, Dome Petroleum, U.S. Navy, Royal Commission - Saudi Arabia, Argyle Mines - Australia, Bechtel Corporation - Greenland, U.S. Air Force, ESSO Resources.

SUBSIDIARIES: Alberta Power, Northland Utilities, Yukon Electrical, Northwestern Utilities, Canadian Western Natural Gas, ATCOR, ATCO Drilling, ATCO Structures.

EMPLOYEES: 6,000 (ATCO Group)

SALES: $1.5 Billion (ATCO Group)

GENERAL SYSTEMS RESEARCH INC. (GSR)

#2200, 10104 - 103 Avenue
Edmonton, Alberta T5J 0H8
Telephone: (403) 424-2000; (403) 451-9000
Telex: 037-3973
Telefax: (403) 426-7658

CONTACT: Glen W. Lavold - Vice President, Corporate Marketing and Development
Ted Zscherpel - Director of Manufacturing
Gary Gibson - Manager, Contracts (403 - 451-9000)

PRODUCTS, SERVICES, SPECIALITIES:

- Aerospace Technologies Division: Manufacture advanced aerospace components utilizing precision machining, composite fabrication, anodizing, aluminum dip brazing, and electro-mechanical assembly for use primarily in aircraft and defence related industries;
- Laser Technologies Division - developing, manufacturing and marketing of computer controlled laser systems for automated materials processing utilizing high power laser beams to cut a wide range of materials such as textiles, plastics, metals and other industrial roll and flat stock products.

QUALITY STANDARDS: NATO AQAP 4 Certification Standards. Have implemented a program to increase the company's aeronautical research and engineering capability and is expanding its advanced CAD/CAM engineering computer systems to meet requirements for an AQAP 1 rating.

FEATURED EQUIPMENT: Western Canada's largest sulphuric acid-based aluminum anodizing line; an aluminum salt bath heat treatment furnace; an aluminum dip-brazing oven; a 100-ton hammer for forming aluminum structural panels; a 96'' x 300'' precision 3-axis computer-controlled milling machine; a 2,800 ton hydraulic sheet metal press; a composite curing oven for metal-epoxy bonding; mold casting equipment for reinforced plastic fabrication of complex shapes.

MAJOR CLIENTS: Oerlikon Aerospace Inc., Boeing Company, Northwest Industries Ltd., General Motors of Canada.

EMPLOYEES: 108

SALES: $5 Million

GEORGE & NICK'S MACHINE WORKS LTD.

#6, 4312 Ogden Road S.E.
Calgary, Alberta T2G 4V3
Telephone: (403) 290-1720
Telex: 038-27573

CONTACT: Ambrose Chun, P. Eng. - Manager of Engineering
Bob Launder - Vice President Finance

PRODUCTS, SERVICES, SPECIALITIES: Precision machining and heat treating.

QUALITY STANDARDS: Qualified by Boeing, Raytheon, Bell Helicopters, Sperry, U.S. Army.

FEATURED EQUIPMENT: 3 milling centres; 3 lathes; 3 CNC lathes; heat treating facilities.

MAJOR CLIENTS: Various oil and gas companies; Litton, Raytheon, Department of National Defense.

EMPLOYEES: 50 - 99

SALES: $3 - $5 Million

GLOBAL THERMOELECTRIC POWER SYSTEMS LTD.

P.O. Box 400, 902 - 5th Avenue
Bassano, Alberta T0J 0B0
Telephone: (403) 641-3512
Telex: 038-48141
Telefax: (403) 641-3981

CONTACT: Gary Moore - Military Sales Coordinator

PRODUCTS, SERVICES, SPECIALITIES:
- Manufacture gaseous and liquid fuel solid state portable thermoelectric generators for both military and commercial use.
- Vehicle engine heater under development for military use.

QUALITY STANDARDS: Commercial and Military Standards - DND 1017, DND 1016, MIL-I-45208, MIL-Q-9858.

MAJOR CLIENTS: U.S. Army, U.S. Air Force, Royal Navy, Canadian Department of National Defense, Government of Chile.

EMPLOYEES: 70

SALES: $3.5 Million

HILTAP FITTINGS LTD.

#301, 1204 Kensington Road N.W.
Calgary, Alberta T2N 3P5
Telephone: (403) 270-7484

CONTACT: Lee Krywitsky - Vice President, Marketing

PRODUCTS, SERVICES, SPECIALITIES:

- Proprietary coupling configuration for use with tubing, hoses and piping. The unique sealing technology offers one design investment for use in cryogenic, high pressure, high temperature and vacuum applications. The connectors can be used in quick disconnect, semi-permanent (replacing flanges) installations.
- Precision machining.

QUALITY STANDARDS: AQAP 4, AQAP 1 pending, U.S. MIL Spec 9758 pending.

FEATURED EQUIPMENT: Mori Seiki Vertical Machine centre Type SL 3H; Mori Seiki Hitec Turning Centre Type 3L 3H Vertical Machining Centre; Mitutoyo Coordinate Measuring Machine Type FJ 604; standard modern tool room accuracy lathe type 1340 with taper and tracing attachments, Lagun vertical turret milling machine type FTV-2 with Universal dividing head and right angle attachment; CAD/CAM equipment.

MAJOR CLIENTS: U.S. Navy (via O.E.M.), Department of National Defense, various companies in oil/gas, chemical, cryogenic, aerospace, automotive, heavy industrial and food processing industries.

EMPLOYEES: 14

SALES: $1 Million

INSPIRA SYSTEMS LTD.

14728 - 116 Avenue
Edmonton, Alberta T5M 3G1
Telephone: (403) 451-2330
Telex: 037-2629

CONTACT: Paul Biermann - President and General Manager

PRODUCTS, SERVICES, SPECIALITIES:

- Ability to combine plastics and metal technology.
- Precision machining of steels, non-ferrous metals and plastics.
- Formulate polyurethanes to produce cast and machined polyurethane parts.

QUALITY STANDARDS: Willing to obtain mil spec requirements.

FEATURED EQUIPMENT: SL-5H Mori Seiki CNC Lathe. Machining center and smaller CNC machine.

MAJOR CLIENTS: Canadian National Railways, Canadian Pacific Railways, Amtrak.

EMPLOYEES: 15

INTERA TECHNOLOGIES LTD.

#1200, 510 - 5th Street S.W.
Calgary, Alberta T2P 3S2
Telephone: (403) 266-0900
Telex: 038-24537
Telefax: (403) 265-0499

CONTACT: Marc Wride - Vice President, Marketing

PRODUCTS, SERVICES, SPECIALITIES:

- Develop and configure remote sensing and other radar systems.
- Radar mapping and surveying.
- Remote Sensing, data acquisition.
- Space borne data analysis.
- Atmospheric research.
- Operation of remote sensing systems.

QUALITY STANDARDS: Manufacture, configure, or operate to customer's specifications.

FEATURED EQUIPMENT: Synthetic Aperture Radar (STAR-Systems), Airborne meteorological sensor systems (AeroLab), Software for data Analysis (e.g. SARSIM).

MAJOR CLIENTS: European Space Agency (ESA), Government of Canada, Government of United States, Government of Indonesia, Government of Alberta, major oil companies (international).

EMPLOYEES: 365

SALES: $40 Million

KEYWORD OFFICE TECHNOLOGIES LTD.

2816 - 11 Street N.E.
Calgary, Alberta T2E 7S7
Telephone: (403) 250-1770
Telefax: (403) 250-1964

CONTACT: Vaughn Keenan - Director, Product Operations

PRODUCTS, SERVICES, SPECIALITIES: Standard product line includes:

- Keyword 7000 - disk to disk conversion system.
- Keyword 8000 - enhanced modular version of 7000.
- SoftPak - PC based work processor conversions.
- Commander - MS-DOS menu generator utility.
- Key Pak - Mini and Mainframe based document conversions.
- The Company provides custom software development and custom electronics design and production.

QUALITY STANDARDS: Meet AT&T Information Systems quality assurance standards.

FEATURED EQUIPMENT: Keyword 7000, Keyword 8000, Key Pak.

MAJOR CLIENTS: AT&T, DuPont, Martin Marietta, U.S. Military.

EMPLOYEES: 75

LAKEWOOD SYSTEMS LTD.

9413 - 20 Avenue
Edmonton, Alberta T6N 1E5
Telephone: (403) 462-9110; (403) 461-5114
Telex: 037-2966

CONTACT: Don Hlibka - President
Ken Smelquist - Vice President

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture portable IBM-related low-powered remote datalogging equipment (i.e. paperless chart recorders), solid state data recorders used in the areas of environmental, laboratory and oceanic testing.
- Manufacture military test systems and instrumentation devices for high and low speed data recording applications.

QUALITY STANDARDS: In-house Quality Assurance Program.

FEATURED EQUIPMENT: Laboratory with pressure test systems and automated data recorders, heat testing and calibration facilities.

MAJOR CLIENTS: Joint development program in Irvin Industries Aerospace Division, Ontario. Involved in technology transfer to the Pacific Rim, Canadian Military.

EMPLOYEES: 6

SALES: $500,000

MYRIAS RESEARCH CORPORATION

Suite 200, 10328 - 81 Avenue
Edmonton, Alberta T6E 1X2
Telephone: (403) 432-1616
Telex: 037-42759

CONTACT: Kenneth Gordon, President

PRODUCTS, SERVICES, SPECIALITIES: Myrias manufactures and markets the Myrias Parallel Processing System designed for cycle-intensive scientific and engineering applications. Designed for both speed and reliability, the Myrias Parallel Processing System is ideal for numerical simulation such as: aerodynamics, seismic analysis, reservoir modelling, meteorology, high energy physics and plasma modelling.

QUALITY STANDARDS: Dedicated to producing a very high quality product with long mean time between failure (MTBF). The Myrias system will be supplied with automatic failure recovery.

EMPLOYEES: 20 - 49

SALES: $1.5 - 2.5 million

NORSTAR INSTRUMENTS LTD.

319 - 2nd Avenue S.W.
Calgary, Alberta T2P 0C5
Telephone: (403) 262-0800

CONTACT: Brad Timinski - Manager Systems Engineering

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture Global Positioning System receivers, computer controlled laser profiling systems.
- Currently in product development phase.

QUALITY STANDARDS: Currently implementing a Mil Spec program.

EMPLOYEES: 11

NORTHWEST INDUSTRIES LIMITED

P.O. Box 9864
Edmonton International Airport
Edmonton, Alberta T5J 2T2
Telephone: (403) 955-6300
Telex: 037-41574
Telefax: (404) 955-2181

CONTACT: F.A. (Floyd) Maybee - Vice President and General Manager

PRODUCTS, SERVICES, SPECIALITIES:

- One of Canada's principal aircraft maintenance and overhaul companies.
- Manufacture and supply components, air and fluid lines, sheet metal fabrication and repair, hydraulic component overhaul, aluminum and steel heat treating, cadmium plating, anodizing, fabric re-covering, manufacture insulation blankets, electrical wire harness manufacture, instrument repair and overhaul, quality control laboratory, non-destructive testing.
- Publish military and commercial technical manuals and modification leaflets.

QUALITY STANDARDS: DND 1015, AQAP 1, MOT.

FEATURED EQUIPMENT: Temperature and humidity controlled paint shop. Complete one-stop service for aircraft repair and overhaul and modification services with advanced structures and avionics, engineering, complete Technical Publications services.

MAJOR CLIENTS: Lockheed Corporation, Canadian Armed Forces, U.S. Department of Defence and other governments such as Chile, Norway and Mexico.

EMPLOYEES: 325

SALES: $22 Million

NOVATEL COMMUNICATIONS LTD.

700 - 9th Avenue S.W.
Calgary, Alberta T2P 3V4
Telephone: (403) 298-0467
Telex: 03-821264
Telefax: (403) 294-0964

CONTACT: R.I. (Bob) Betteridge - Manager, Advertising and Public Relations

PRODUCTS, SERVICES, SPECIALITIES:
Manufacture cellular mobile telephones and systems.
- RF System Engineering.

QUALITY STANDARDS:
- CSA Testing Standards.
- Ford Motor Company Quality Control Program.

FEATURED EQUIPMENT: Automated Component Inserter (High volume capabilities, robotics).

MAJOR CLIENTS: Carphone Cellular Group, LIN Broadcasting, Alberta Government Telephones, Northwest Tel, Century Telephone, Volvo, Cellular One; Ford Motor Company.

EMPLOYEES: 634

SALES: $80 Million

NUTRON MANUFACTURING LTD.

4318 - 76 Avenue
Edmonton, Alberta T6B 2H8
Telephone: (403) 468-2732
Telex: 037-3469

CONTACT: J.P. Rejasse - President

PRODUCTS, SERVICES, SPECIALITIES:
- Metal and plastic fabrication.
- Manufacture high pressure metal ball valves.
- Plastic injection moulding.
- Replacement parts.

QUALITY STANDARDS: In-house Quality Assurance Program.

FEATURED EQUIPMENT: 3 CNC lathes, 2 CNC machining centres.

MAJOR CLIENTS: Zimco, Comco, Woolco.

EMPLOYEES: 29

SALES: $4 - $5 Million

OIL PATCH GROUP INC.

MANUFACTURING AND SERVICE DIVISION

P.O. Box 5770, Station "L"
5105 - 75 Street
Edmonton, Alberta T6C 4G2
Telephone: (403) 469-4431
Telex: 037-2392

CONTACT: Dave Graves - Operations Manager

PRODUCTS, SERVICES, SPECIALITIES: Precision machining. Geared for handling larger and heavier projects and custom fabrication.

QUALITY STANDARDS: Quality Assurance Program to meet requirements of Litton and Raytheon, qualified to MIL-45208-A, API 6A, ASME SEC 9 Div 1 and ANSI/ASME B31.1.

FEATURED EQUIPMENT: CNC lathes and machining centers; CAD/CAM Engineering and Design.

MAJOR CLIENTS: Raytheon, Gulf, ESSO, PetroCan.

EMPLOYEES: 75

SALES: $17 - $20 Million

PELORUS AVIATION SUPPLIES CANADA LTD.

#202, 575 Palmer Road N.E.
Calgary, Alberta T2E 7G4
Telephone: (403) 250-9377
Telex: 038-21557

CONTACT: Ed Fitzhenry - President

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture electronic measuring equipment (distance measuring equipment for airports (DME)).
- Produce automated weather observation and reporting systems (AWORS); microwave landing systems; airborne receivers.

QUALITY STANDARDS: Department of Communication.

FEATURED EQUIPMENT: Electronic test equipment - spectrum analyser, oscilloscopes, power meter, frequency counter, signal generators.

MAJOR CLIENTS: Provincial and municipal governments who operate airports from coast to coast in Canada.

EMPLOYEES: 10

SALES: $3 Million

POLESTAR COMMUNICATIONS LTD.

P.O. Box 2280
Morinville, Alberta T0G 1P0
Telephone: (403) 939-6577
Telex: 037-42509

CONTACT: Bryon Peddie - Marketing Manager

PRODUCTS, SERVICES, SPECIALITIES:

- Design, installation, operation and maintenance of data networks utilizing satellite, dedicated circuits and radio links;
- Design, installation and operation of HF-SSB radio systems;
- Design and manufacture of HF transmitters and receivers for data-only applications;
- Design and operation of real-time data links via HF;
- Design and manufacture of microprocessor controlled audio switch for interconnect of two voice channel radios with telephone, Telex, FAX, etc.
- Design and development of Vessel Surveillance System (VSS) - to monitor movement of ocean vessels operating in a specific offshore economic zone.

QUALITY STANDARDS: Will meet mil-spec requirements.

FEATURED EQUIPMENT: Wide range of test equipment plus limited manufacturing capabilities.

MAJOR CLIENTS: Nortech Surveys; Canadian Hydrographic Surveys; Canadian Coast Guard; Federal Department of Fisheries and Oceans; ITT-MacKay; U.S. Federal Emergency Management Agency (FEMA); Forum Fisheries Agency.

EMPLOYEES: 9

SALES: $2.5 Million

SARMAN CUSTOM METAL FABRICATION (1984) LTD.

6221 Wagner Road
Edmonton, Alberta T6E 4N4
Telephone: (403) 468-9160

CONTACT: John Ondrack - General Manager
Wayne Sarman - Sales and Production Manager

PRODUCTS, SERVICES, SPECIALITIES:

- Specialize in metal fabrication specifically shearing, CNC punching, notching, NC bending, welding and finishing of all types metals (including painting in textured finishes, baked enamel, etc.).
- Complete welding facilities for any type of material.
- Manufacture light-gauge metal products, cabinets and accessories, control panels, consoles, chassis, racks and other equipment for the electronics industry.

QUALITY STANDARDS: Manufacture to customer's specifications.

FEATURED EQUIPMENT: Wiedematic Mach II, CNC Metal Punching Machine, Allsteel, 10 ft., 10 gauge Shear with Power Backgauge.
Allsteel, 70/10 Press Brake with NC Backgauge.
Numerous other pieces of sheetmetal fabrication equipment.

MAJOR CLIENTS: Alberta Government Telephones, Alberta Transportation, Allarcom Limited, City of Edmonton Power, City of Edmonton Transportation, Dow Chemical Canada Inc., Esso Petroleum Canada Inc., Harding Instruments Co. Ltd., Intrex Traffic Control Products Ltd., Johnston Controls Ltd., Master Flo Valve Company, Siemens Electric Limited, Transport Canada, Syncrude Canada.

EMPLOYEES: 12

SALES: $1.5 Million

SEA SCAN TECHNOLOGY (CANADA) INC.

Unit 1 4393 - 14 Street N.E.
Calgary, Alberta T2E 7A9
Telephone: (403) 250-5577
Telex: 038-27703

CONTACT: Rick Harrison - Director of Marketing

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture low cost remotely operated vehicles (LCROV) for underwater/underice surveillance through the use of color video cameras and monitors.
- Specialty products for underwater viewing, i.e. nuclear industry, hydro industry and offshore oil.

QUALITY STANDARDS: Mil Spec 810C.

FEATURED EQUIPMENT: CAD System, electronics test equipment, robotics.

MAJOR CLIENTS: United States Army, Hydro Quebec, Ontario Hydro.

EMPLOYEES: 14

SALES: $2.8 Million

SIGMA SHANNON

3900 - 101 Street
Edmonton, Alberta T6E 0A5
Telephone: (403) 465-6101
Telex: 037-3593
Telefax: (403) 450-0234

CONTACT: John Blerot, P.Eng. - President
E. Vandenberg - General Manager
George Glasper, P.Eng. - Project Engineer

PRODUCTS, SERVICES, SPECIALITIES: Manufacture sheet metal enclosures for electronics, control consoles, doors and chassis in steel and aluminum.

QUALITY STANDARDS: Qualified for Raytheon. AQAP 4, AQAP 6, MIL-I-45208A.

FEATURED EQUIPMENT: Sheet metal fabricating equipment including CNC Turret Punch Press, aluminum and steel spot welding, electrostatic painting.

MAJOR CLIENTS: Raytheon, Transport Canada, various telecommunications companies such as Alberta Government Telephones, SaskTel, B.C. Tel, and Manitoba Tel.

EMPLOYEES: 45

SALES: $3.5 Million

SPECIAL TOOL PRODUCTS

9825 - 45 Avenue
Edmonton, Alberta T6E 5C8
Telephone: (403) 437-2530

CONTACT: Ian E.J. Grant - President

PRODUCTS, SERVICES, SPECIALITIES:

- Fine tolerance precision machining of space-age high temperature nickle-based and titanium alloys, both custom and production.
- Finishing and assembly of manufactured items for aerospace, defense, civil engineering and petrochemical industries.
- Experienced in developing procedures for difficult machining applications.

QUALITY STANDARDS: Department of National Defense, AQAP 4, CSA. Z.299.3, API-SPEC. 6A-P3L3 (Machining Services).

FEATURED EQUIPMENT: Numerical Control Machine Tools: Matsuura MC100V 3-Axis CNC Mill, Matsuura MC-500V 4-Axis CNC Mill, Tree Journeyman NC 2-Axis Mill, Oerlikon VDF 250C 2-Axis CNC Lathe, Dianichi BX-45 2 Axis CNC Lathe.
Conventional Machine Tools: 2 engine lathes, 4 vertical mills, 2 horizontal mills, 2 drills, 1 slotter, 1 tool and cutter grinder, 1 rotary surface grinder.

MAJOR CLIENTS: British Steel Corporation, C.E. Rector-Gray, D.B. Robinson & Associates, Interprovincial Steel and Pipe Corporation, McEvoy-Willis Division of Smith International, Norton-Christensen, Siemens Electric, Syncrude Canada, Valtek Controls Ltd.

EMPLOYEES: 22

SALES: $1.5 - $2.0 Million

VERSATECH INDUSTRIES LTD.

#104, 3750 - 19 Street N.E.
Calgary, Alberta T2E 6V2
Telephone: (403) 250-8000

CONTACT: W.A. (Bill) Meyer - President
M.F. Meyer - Secretary Treasurer
A.C. (Andy) Baylis - Plant Manager

PRODUCTS, SERVICES, SPECIALITIES:
- Precision machining centre.
- Manufacture down-hole precision oil tools.

QUALITY STANDARDS: In-house Quality Assurance Program. CAD/CAM system.

FEATURED EQUIPMENT: OKK-630 CNC vertical machining centre, 4 axis with Fanuc 11M control, Mori-Seiki SL5-CNC turning centre with Fanuc 6T control, Mori-Seiki SL2-11-CNC turning centre with 11T-A control, Takasawa BHN-6 CNC turning centre with Fanuc 6T control, five engine lathes, three milling machines, radial arm drilling machine, honing machine, CAD-CAM system (Autocad).

MAJOR CLIENTS: Alberta Energy Company Ltd., Shell Canada Limited, Lynes United Services Ltd. (Baker Co.), Drill-Rite Industries Ltd. (Computalog Co.), Canterra Engineering Ltd., Positive Action Tools Ltd., NL McCullough Inc., Norcen Energy Resources.

EMPLOYEES: 12 - 20

SALES: $1 - $3 Million

VOLK INDUSTRIES

4612 - 6th Street N.E.
Calgary, Alberta T2E 3Z7
Telephone: (403) 230-3115

CONTACT: Jay Scott - President

PRODUCTS, SERVICES, SPECIALITIES: Precision machining.

QUALITY STANDARDS: Certified by Raytheon, Pratt and Whitney, Litton, MIL-I-45208, DND 1016, AQAP 4.

FEATURED EQUIPMENT: 7 CNC Lathes, 2 Vertical Machining Centres, CNC machine tool tape preparation software for CNC programming, editing, plotting, punching and program storage, AutoCAD software and CAD-CAM programming, DataBase III Plus DataBase Management software.

MAJOR CLIENTS: Raytheon Canada, Canadian Foremost Ltd., HEP Pumping Systems, Prudential Steel, Variperm Canada Limited, Daniel Industries, Novatel Communications.

EMPLOYEES: 25

SALES: $3 Million

WELLSDALE RESEARCH LTD.

6912 - 82 Avenue
Edmonton, Alberta T6B 0E7
Telephone: (403) 468-1761
Telex: 037-43341
Telefax: (403) 433-4550

CONTACT: (Mrs.) Marlene Sponagle - Secretary Treasurer

PRODUCTS, SERVICES, SPECIALITIES:

- Custom design and manufacture remote unmanned electronic and photovoltaic systems.
- Specialize in manufacture of automated weather stations.
- Wellsdale has developed and installed the world's most northerly photovoltaic powered system (78° Lat. N.) for continuous year-round use.
- Expertise in installation of scientific equipment in perma-frost.
- Repair and maintenance of weather radars.

QUALITY STANDARDS: Built to Mil Spec requirements. In-house Quality Assurance Program.

MAJOR CLIENTS: PetroCan Explorations, Syncrude, National Research Council, Environment Canada, B.C. Hydro.

EMPLOYEES: 6

SALES: $500,000

WESTERN AEROSPACE TECHNOLOGY

CONTACT: Everett Bunnell - President

PRODUCTS, SERVICES, SPECIALITIES: A newly created company to be involved in aircraft service and repair. The company intends to initially participate in the servicing and refitting of CF-5 aircraft through Bristol Aerospace Ltd.

WESTRONIC INC.

4525 Manilla Road S.E.
Calgary, Alberta T2G 4B6
Telephone: (403) 243-3335
Telex: 038-24894
Telefax: (403) 243-1815

CONTACT: Sandra Kanegawa - Manager, Marketing

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture remote terminal units for Supervisory Control and Data Acquisition (SCADA) systems, telemetry equipment and systems.
- Distribute Photovoltaic panels and batteries.

QUALITY STANDARDS: Manufacture to customer's specifications. Company has implemented J.I.T. and Juran Quality Programs.

MAJOR CLIENTS: Harris Control, Brown-Boveri, Datap Systems, Dome Petroleum, Transalta Utilities, Edmonton Power, China Light and Power, Canadian National, Canadian Pacific (CNCP), Sask Tel, Malaysia NEB.

EMPLOYEES: 104

SALES: $12 Million

WILLOWGLEN SYSTEMS LTD.

#1, 1235 - 64 Avenue S.E.
Calgary, Alberta T2H 2J7
Telephone: (403) 253-3051
Telex: 038-25630
Telefax: (403) 253-2411

CONTACT: J. Malcolm Milne - Vice President

PRODUCTS, SERVICES, SPECIALITIES:

- Design, manufacture and service of computer remote control monitoring equipment, telemetering equipment, and remote control for telecommunication equipment.
- Willowglen's "RTU's" provide remote monitoring and control of Satellite Communication Earth Stations for ANIK C 14 GHZ satellite.

QUALITY STANDARDS: Approved vendor to Raytheon, MIL-Q-9858A, Quality Program Systems Calibration systems comply with MIL-STD-45662 and DND 1019. Statistical Quality Control sampling is in accordance with MIL-STD-105.

FEATURED EQUIPMENT: Digital Electronic and Microcomputer printed circuit board and mechanical assembly, Minicomputer and Microcomputer programming facilities (DEC and Motorola).

MAJOR CLIENTS: Government of Singapore (electrical, gas, water, housing), Southern California Metropolitan Water District, City of Calgary, Maritime Electric, Lavalin International.

EMPLOYEES: 85

SALES: $15 - $20 Million

WILSON INDUSTRIES INC.

1717 Ashgrove Road
Lethbridge, Alberta T1K 3M2
Telephone: (403) 328-6111
Telex: 038-49251
Telefax: (403) 320-8958

CONTACT: John Wilson - Director, Operations

PRODUCTS, SERVICES, SPECIALITIES:

- Manufacture remotely-piloted vehicles, aerial targets.
- Specialize in cost effective RPV's, infrared sensors, UV sensors and control systems.

QUALITY STANDARDS: Manufacture to customer's specifications.

FEATURED EQUIPMENT: CAD Equipment

MAJOR CLIENTS: Canadian Forces

EMPLOYEES: 10 - 15

ternational Representatives

e Alberta government maintains
ices in strategic locations around the
orld. Our foreign office representatives
n provide all the information required
initiate commercial or technological
changes. They can also introduce
tential investors to the unlimited
pportunities available within the
ovince of Alberta. Feel free to use
ir services.

Eastern U S Operations

Alberta Economic Development
5th Floor, General Motors Building
767 Fifth Avenue
New York, New York 10153
Telephone: (212) [illegible]
Telex: [illegible]

Southwestern U S Operations

Alberta Economic Development
Suite 1125, 5444 Westheimer Road
Houston, Texas 77056
Telephone: (713) [illegible]
Telex: [illegible]

Western U S Operations

Alberta Economic Development
Suite 3550, 333 South Grand Ave.
Los Angeles, California 90071
Telephone: [illegible]
Telex: [illegible]

Asia Pacific Operations

European Operations